)22 Extension Circular No. 134

Agricultural Extension Service
OF THE
State College and
tate Department of Agriculture
AND
U. S. Department of Agriculture
Cooperating

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Raleigh

EDING BEEF CATTLE

By R. S. CURTIS

ted in Furtherance of the Acts of Congress
of May 8 and June 30, 1914

SUMMARY

Beef cattle can be most satisfactorily fi
during the winter months. Summer feeli
cept in rare cases, cannot be satisfactory
ticed in the West.

It is best to start the feeding operatio
November 1st and finish the animals so
during March.

Start feeding one pound of cottonseed
animal daily and increase this gradually
full feed after three to four weeks. Do
animals off feed in so doing.

All the roughage that the animals
sume should be given. The cottonseed
be thoroughly incorporated with the hu
silage or other dilutent feed used.

A full ration of cottonseed meal consis
pound per hundred pounds live weight
animals being fed.

The average grass fat cattle should b
least four months and preferably four
half to five months if a prime finish is de

The barn in which the feeding is don
be constructed in such a way that cattle
two feet of trough space per animal and
not unduly crowded. An open shed wi
for the purpose if properly arranged.

Cattle should be kept in the barn at
in order to properly conserve the manu
is one of the chief reasons for finishi
cattle.

Keep water and salt before cattle at a
This is very important.

If possible, have corn silage for part
roughage ration as it is a home grow
and a better finish can be acquired by us

Do not market cattle before they are f
fullness of the cod and tongue root are
dications of proper finish.

If cattle can be sold in the country
advantage do so. Otherwise, get in tou
the Division of Markets to help solve yo
lem.

FEEDING BEEF CATTLE

BY

R. S. CURTIS

Animal Industry Division

Types of Beef Cattle Production.

Beef cattle industry naturally divides it- two distinct phases, that is, the produc- beef from calfhood until normal growth and second, the finishing of cattle for the by adding extra weight through the fat- process. For the purpose of giving read- lear conception of what can be expected attle feeding under southern conditions, er phase is being considered in this circu-

Reasons for Feedings.

rdless of whether a farmer wishes to fol- live stock business or grow cotton, tobacco n crops, it is reasonable to assume that n which these crops are grown need the furnished by manure. There is no bet- to permanently improve farm lands than use of manure, and where roughage is le and cottonseed can be exchanged for eed meal or the latter purchased directly, ls to reason that feeding some kind of cat- good farm practice. These may be either dairy cattle since the principle is the n either case.

fact is reasonably well established that manure is conserved and placed on the field leaching, from 75 to 85 per cent of the il fertility of the feeds used is returned soil through the manure. The incorpora- vegetable matter obtained from the manure ie nitrogen from cottonseed meal in the rnishes two important reasons for following phase of live stock farming. This avoids the cottonseed meal as a direct fertilizer, addition having to sustain the loss of the g value of farm grown roughage, have it waste, or sell it from the farm.

Time to Feed

The logical time to finish beef cattle fo
ket is during the winter, preferably dri
months of November, December, Janu
ruary, and March. There are several re
this which may be enumerated briefly, af

First, it is largely during the fall seas
the feeder cattle produced in the mounta
placed on the market. *Second,* cottonse
can be fed much more successfully dur
winter season because its toxic proper
retarded during this season and augmen
ing the summer season. *Third,* such a
furnishes a much more even distribution
and *fourth,* there is usually a very goo
for winter finished cattle in March, whi
prior to the beginning of the spring farm
son.

Kind of Cattle to Buy.

The kind of cattle to buy will depend
ditions, and more especially, the available
when the cattle are finished. If less th

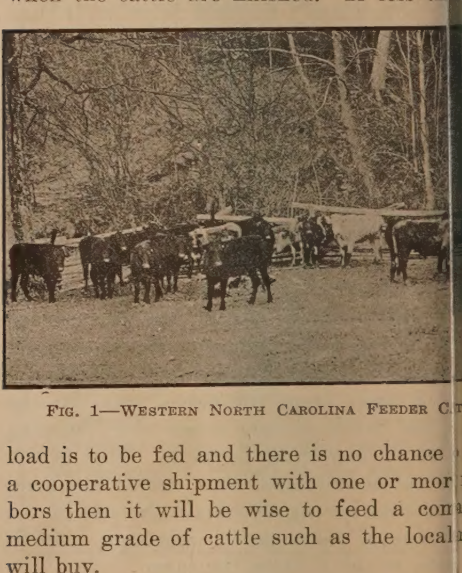

Fig. 1—Western North Carolina Feeder C

load is to be fed and there is no chance
a cooperative shipment with one or mor
bors then it will be wise to feed a com
medium grade of cattle such as the local
will buy.

r load or more is to be fed so that ship- be made to a central competitive market tter grade of cattle will usually be more ry from all viewpoints. It is true, how- t there are times when it will pay bet- ed a medium class of cattle even when to be shipped to a central market. Such on usually holds when feeder cattle and very high and the average butcher does to invest such a large amount in an l animal. At such times the consumer noderate in his buying and consequently pensive cuts do not meet with favor. dition prevailed for some time during Again when the cattle market is un- nd is just recovering from a falling or g price period, it is best not to invest ly in choice weighty cattle.

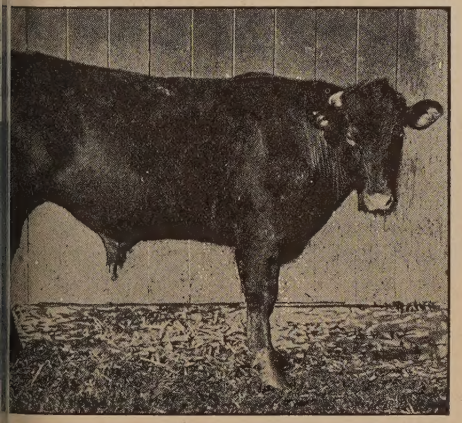

Fig. 2—An Inferior Feeder

lless of the size or grade of cattle pur- is best to have them as near uniform in breeding as possible and have them all . They will feed in smaller trough space n more uniformly especially if there are k or timid animals in the lot. If cattle dehorned when purchased it will be well is after all warm weather is past. In

this case the cattle should be purchase
a time so that they may be dehorned b
are started on feed.

Time to Purchase.

In the South conditions very large
time when cattle can be purchased an
for market to best advantage. In t
for example, the western or mountaino
of the State is known as the chief fee
producing region. Good blue grass
orchard grass, and other grasses suit
soil and climate make this section an i
producing region.

Likewise, the mountainous conditio
western part of the State precludes a n
railways and thereby the shipment of
feeds into the more remote sections to
tle for market. Naturally, therefore,
of the grazing season which ranges fro
ber 15th to October 15th, there is usual
number of grass fat cattle placed on t
These are very largely of Shorthorn
although some Aberdeen Angus and
blood abounds.

In the middle and eastern sections of
where nutritious grasses have not been de
abundantly as in the mountains and wh
and tobacco are the chief crops, an i
feeding section prevails. Almost without
the lands on which cotton and tobacco
need the manure. The winter cattle f
dustry also helps to stabilize labor con
many such farms.

The time to purchase feeder cattle,
is when the grass cattle come on the
though it is best to defer placing catt
until November 1st, if possible. This
they do much better on a cottonseed m
during the colder winter months, and
the cattle in condition for market along
or the forepart of April when cattle
usually stable.

Shrinkage.

fat cattle, when driven or shipped for nces, usually shrink very heavily. Every ust expect to sustain a certain amount x when purchasing grass fat cattle for purposes, although an undue amount of s very difficult to overcome in so far ible profit is concerned. It behooves each r or feeder of cattle, therefore, to pur- eir cattle under normal conditions, that r such conditions that a heavy shrink likely result.

White Face Feeders from the Ranges of the West

narily, a shrink of ten pounds per 100 live weight would be considered a maxi- shrink when the cattle are weighed im- ely after removing from the car. After d water has been given this shrink should uced to about three-fourths of this amount 0 pounds live weight. The average net , therefore, on 1,000 pound cattle, should over 75 pounds per head.

average gross shrink would be about 7½ s per 100 pounds live weight which should uced to about 5 pounds per 100 pounds live

weight after feed and water have been g
gross shrink of less than 5 pounds per 1
live weight would be considered light.

These are somewhere near the figur
would hold where a moderate drive has b
to shipping point and where a 150 to 2
shipment has been made. The shrink
less or greater according as the distanc
duced or increased although the greatest
shrink is usually sustained during the
the first half of the shipment, that is th
age per 100 pounds live weight grows le
distance is increased. This is perfectly
and is expected by any one versed in c
their handling and management.

Length of Time to Feed.

Under average conditions cattle taken
pasture with no additional feed, cannot
factorily fattened under four months a
better, especially if a choice lot of cattle
ing finished, to feed them four and
months or even five months if a prime
desired. This better finish acquired on
choice cattle will pay providing feeds
too high.

Many feeders undertake to get cattle r
market in a three months feeding per
with a nitrogenous feed like cottonseed m
cannot be done. To sell well, cattle mu
finish regardless of their quality. The
must use judgment in all of these matt
ordinarily the rules suggested will apply.

The finishing process is not only for t
pose of increasing the weight, but to int
the flesh of the animal with fat which is
as the marbling process. This is what the
wants and will pay for within reasonabl
according to the amount of finish obtaine
quired by the animal.

Kind of Ration to Use.

The two fundamental reasons for feedi
cattle in the South are to consume the r

Fig. 4—Cuts from a Well Fattened Steer

feeds produced on the farm and to sp
soil with the nitrogenous and vegetal
needed through the application of th
resulting from the feeding process. It
able, therefore, that the most successf
produce their own roughage. In many
may exchange cotton seed for cottonsee

There is much feeding done in the
which cases all feeds are purchased by t
Cottonseed meal and cottonseed hulls us
stitute the entire ration when such a
followed. Under these conditions the
ration is suggestive of what may be use

8 pounds of cottonseed meal.
20 pounds of cottonseed hulls.

Such a ration is suitable for an 8
steer on full feed and should be give
equal feeds morning and night. This
best ration and it is not the intention to
an impression. However, it is the one
used in the South. Unless cattle are
fat to begin with, this ration is not su
producing a prime finish.

Cottonseed Products and Farm Produc

8 pounds cottonseed meal.
10 pounds cottonseed hulls.
10 pounds corn stover.

or

8 pounds cottonseed meal.
10 pounds cottonseed hulls.
20 pounds corn silage.

or

8 pounds cottonseed meal.
10 pounds corn stover.
20 pounds corn silage.

or

4 pounds cottonseed meal.
8 pounds shelled, crushed or b
corn.
10 pounds corn stover.
20 pounds corn silage.

other combinations may be made. How-
se serve to illustrate the principle of
a proper ration for the finishing pro-
all cases, it is necessary to mix the
d meal with the cottonseed hulls or the
ge providing such is fed. The meal
e thoroughly incorporated in either case
e should never be fed cottonseed meal
some dilutent.

the above rations are good but those
g corn silage are preferable because the
ge is a home grown product and experi-
ver a long period of years have proved
ely that cottonseed meal can be fed in
mounts and for longer periods when corn
used. This means that a better finish
acquired. Lack of proper finish is the
fault to be found on the markets where
cattle are shipped to be sold. Better
methods and longer feeding periods must
before the greatest success will follow this
.

How to Use Corn Silage with Dry Roughage.

silage is not only a good feed for fattening
ut it has what may betermed a stimulat-
ct in rations where cottonseed meal is fed.
of its adaptibility and value in such
care should be taken to plan them so as
he greatest benefit.

e is a great deal of deception in using
primarily because the loss from spoilage
greater than anticipated. Thus, to start
corn silage too liberally in the beginning
result in having an insufficient quantity
through the feeding period. This brings
ery unfortunate condition which may re-
retarded gains, a lack of finish and a con-
failure to sell the cattle to best advantage.
ure, therefore, not to start feeding silage
on in the feeding period if it seems that
s not a sufficient quantity to last until the
are finished. In this case either plan to

uller amount throughout the entire feed-
l or save the silage until the last half
riod. To be compelled to take silage
e two or three weeks or more before they
d and place them entirely on dry rough-
a great sacrifice in the finish and bloom
ttle, and consequently on the price ob-

Increasing the Feed.

should always be brought up to a full
ually. In the South a good rule is to
ing one pound of cottonseed meal per
ily with all of the roughage they will
From three to four weeks should be
get them on full feed. This will de-
the length of time the cattle are to be
hey are to be given a short feed then
ld be gotten on full feed sooner than
If they are to be fed for a long period
ne month should be used to bring them
ration.

once gotten off feed are difficult to
In fact many times they never regain
mal condition sufficiently to finish out
other cattle. Digestive disturbances are
follow where the feed is increased too
before the system becomes adjusted to
ge from grass to dry concentrated feeds.
iminary feeding period is an important
feeding operations and too much care
tion cannot be given to the cattle at this

Do Not Feed Cotton Seed.

eding of cotton seed is not only a wasteful
but the excessive amount of oil in the
ikely to cause continued digestive dis-
s, especially if large amounts are given.
nly a small amount is fed the practice
followed without detrimental results, but
er practice to exchange the seed for cot-
meal if a reasonable exchange can be

Cottonseed Cake a Valuable Feed

As the beef cattle feeding industry
feeders will no doubt find that cotto
will become popular. The danger fro
cake is not so great, especially where
amount of a dilutent feed such as hulls, c
crushed corn and cob meal, or other suc
is not used. Where cattle are fed on gr
is a rare practice, cottonseed cake is
troughs in a cracked form. Altho
amounts are not used under these cond
same as in winter feeding, there would
same likelihood of digestive troubles ev
this were the case as the cake cannot
by the cattle as can the meal.

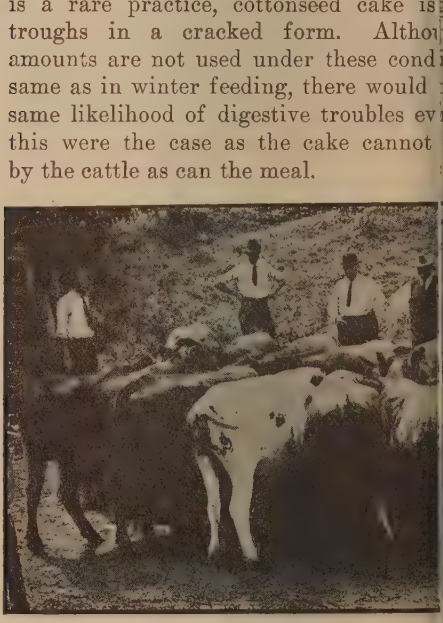

Fig. 6—Summer Fattening on Grain and Cotto

Where cottonseed cake is used it
crushed to a size not larger than the
nut. Smaller sizes may be used but t
preferable for feeding beef cattle. Thi
would not be desirable for feeding dairy
the meal being preferable for many rea

Finishing for Shipment.

Sudden changes in feeds should a
avoided, and certainly at any time durin
few weeks prior to the shipment to mar

ation should be continued until the last
it is a very good plan to feed some hay
ry roughage and reduce the concentrates
. Grass hay should always be used for
ose and never legume hay.

practice is especially desirable where
ntities of cottonseed meal are being fed.
lency is for steers to scour when they
n or subjected to any undue excitement.
tions of cottonseed meal have a tendency
vate this condition and for this reason
e to reduce this part of the ration and
e some dry roughage to take its place.

d to be thought that where silage con-
part of the ration that this should be
ed from the ration during the last week
ays of the feeding period. Experiments,
do not corroborate this conclusion. Corn
ay be fed up to the last day, and especi-
his true if dry roughage of some nature
fed along with it.

Indications of Finish.

attle are fat they naturally present a
appearance due to the fact that the heavy
fat which has been accumulated covers
pressions and, in a measure, any defects
he animal may have in its form or make
ie amateur can thus easily distinguish be-
thin animal and a moderately fat animal,
ether the animal is really finished for
is another matter which only the experi-
ock man can decide.

n cattle are fat sufficiently for market,
hould be a decided fullness in the crops
are just back of the shoulders, at the base
tail, at the tongue root and flanks. If
are being judged for their actual fitness
rket then the cod is a good indication as
one of the last places where fat accumu-
This should be reasonably prominent which
indicates that it is distended with fat.

ne root which should likewise be full
od are two of the best indications that
l is ready for market.

How and When to Ship.

few brief statements will be made in
marketing and then only as the time
ion of the fattening period influences
he time of marketing. Cattle fed on
meal will seldom gain satisfactorily
r and one-half to five months except
cially compounded rations are fed in
ge plays an important part.
arket should be studied carefully and
so started on feed that they will attain
arketable condition at a time when the
most likely to be advancing, or at least
strong price level.
eed meal fed cattle should never be car-
until warm weather as such conditions
all favorable to persistent gains. If it
le for any reason to feed longer than
suggested, then the feeding should be
rlier in the fall as thin cattle on cotton-
will stand warm weather much better
cattle so fed. That is, it is better to
thin animal earlier in the fall than to
time of finishing the animal into the
ing weather.
ily the latter part of February and dur-
h and early April is a good time to
t cattle from the South. If the market
however, they may be carried longer
the weather does not grow too warm
gy." This is a very undesirable weather
for finishing cattle on cottonseed meal.

Markets

rom the local cattle markets, the chief
arkets for this section are Richmond,
hington, D. C., Baltimore, Md., Phila-
a., Jersey City, N. J. and Lancaster,
of these markets maintain commission

men who will look after shipments co them and remit to the shipper after al have been paid.

It is customary for buyers to go th country each spring and purchase fat shipment. If a reasonable price can t tained and the cattle weighed on the it may and often will be best to follow This is especially true with the amat only a few cattle are being fed. If, l cooperative shipping association can under the direction of the Division of this would be a good plan to follow. Co tions relative to specific marketing proje be directed to the Division of Markets N. C.